

Amendments to the Claims:

1 1. (Cancelled)

1 2. (Currently amended) A housing jacket according to claim 15 [[+]], characterised in
2 that the coating thickness is between 10 µm and 50 µm.

1 3. (Currently amended) A housing jacket according to claim 15 [[+]], characterised by
2 the use of a dipping varnish with a basis of epoxyaminourethane deposited by a
3 cathophoretic process.

1 4. (Currently amended) A housing jacket according to claim 15 [[+]], characterised by
2 the manufacture of the jacket body from aluminium.

1 5. (Cancelled)

1 6. (Cancelled)

1 7. (Currently amended) A housing jacket according to claim 15 [[6]], characterised in
2 that the housing jacket end faces (5a, 5b) comprise two end faces which are remote from
3 one another and/or parallel to one another, the cooling channels (2) in the first (5a) of
4 which end freely accessibly on the exterior, and the cooling channels (2) in the second

5 (5b) of which end at a housing end wall (6) formed by casting and are thus closed in a
6 sealing-tight manner to the exterior.

1 8. **(Currently amended)** A housing jacket according to claim 15 [[6]], characterised in
2 that the second (5b) housing jacket end face (6) or end wall formed by casting abuts the
3 remaining housing jacket body in an integral manner.

1 9. **(Previously presented)** A housing jacket according to claim 7, characterised in that
2 the second (5b) housing end wall (6) formed by casting is provided inside with cavities
3 such that they form deflection chambers and/or transverse ducts (14), which
4 communicate with the cooling channels (2), extend transverse to a hypothetical motor
5 axis of rotation, and join together the channel ends and/or the deflection chambers.

1 10. **(Cancelled)**

1 11. **(Currently amended)** A housing jacket according to claim 15 [[40]], characterised
2 in that the bores or perforations have a female thread for the fixing of casting core
3 holding elements and/or for receiving screw-type seals (16).

1 12. **(Previously presented)** A housing jacket according to claim 11, characterised in that
2 the screw-type seals (16) are provided with sealing rings.

1 13. **(Currently amended)** A housing jacket according to claim 15 [[40]], characterised
2 in that the bores (15) or perforations are formed as inlets or outlets (7, 11) for coolant and
3 communicate with the cooling channels, optionally via a deflection chamber and/or
4 transverse duct (14).

1 14. **(Currently amended)** A housing jacket according to claim 15 [[5]], characterised in
2 that at least on a first housing jacket end face (5a) fixing elements (18) are provided in
3 order to mount a cover, an end shield or pressure ring (17).

1 15. **(Currently amended)** A coolable housing jacket (1) for an electric motor, which is
2 manufactured as a cast moulded part, is formed for receiving a concentric internal
3 rotor/stator arrangement (23) together with windings and winding overhang (24) with a
4 through-passage (3) that is symmetrical, concentric and/or coaxial with respect to a
5 hypothetical motor axis of rotation, and which is penetrated by one or more cooling
6 channels (2, 2a-h) to form a coolant circuit, characterised by

7 (a) a coating on the jacket inner faces including the channel internal walls via a
8 cathodic dip-varnishing process and

9 (b) the housing jacket being an integral, one piece casting within which are the
10 cooling channels (2) and transverse ducts (14) connecting the ends of cooling
11 channels of adjacent quadrants wherein the cooling channels (2) end with
12 apertures freely accessible on the outside opening onto at least a first (5a) of
13 plural housing jacket end faces (5a, 5b), and wherein in a second (5b) of the
14 housing jacket end faces (5a, 5b) the cooling channels (2) end at a housing wall
15 formed by the one piece casting and are thus closed in a sealing-tight manner with
16 respect to the outside and wherein the housing jacket end face (6) formed by
17 casting and sealing the cooling channels (2) has in its cast wall one or more bores
18 (15) or perforations.